

## **VARIATIONAL MODELING USING EXTENSION TYPES**

### **Abstract of the Disclosure**

The use of extension types as a mechanism for an essentially horizontal extension of types for modeling multiple extensions and variations of a software artifact. In that an extension type is a tuple of unrelated classes, each element class in the tuple corresponds to an extension of the extension type. Using extension types, one can bring two unrelated classes or types together to perform computations. Shown herein are manners via which extension types may elegantly model multiple and dynamic extensions of an artifact.

Also shown is how extension types simplify aspect-oriented software development and several design patterns.